

MATHEMATICS MAGAZINE

Index to Volume 26

September-October 1952 — May-June, 1953

Articles by Title

A Consideration of the Null Class — Roger Csborn	185
A Formula for the Calculation of the Inertia Moment of Some Geometrical Solids — Christos N. Kefalas.	265
Application of the Summation by Parts Formula to Summability of Series — Tomlinson Fort.	199
A Note on the Poisson Law — R. M. Redheffer	185
A Note on the Solution of the Equation $f'(x) = f(x+a)$ — John W. Green.	117
A Reflexive Approach to the Teaching of Mathematics — Charles Johnson	35
Construction of the Green's Function of a Linear Differential System — Kenneth S. Miller	1
Construction of the Position and Extent of the Axes of an Ellipse, Given a Pair of Semi-conjugate Diameters — C. N. Mills.	227
Cycloidal Motion of Electrons — S. E. Rauch.	255
Don't Call It Science — James E. Foster.	209
Evaluation of Certain Classes of Infinite Numerical Series in Closed Form — Bill W. Fain	121
Elements of a Mathematical Theory of Probability — J. H. Curtiss	233
Ellipse Construction Short Cuts — S. B. Elrod.	97
Every Integer Greater than 2 is a Member of a Pythagorean Triplet — James E. Foster	209
Ideal Preparation in Mathematics for College Freshmen — J. Seidlin	89
Infinite Series and Fourier and Taylor Expansions — Robert C. James.	21
Information Retrieval — John Lamperti.	228
Letter (concerning the three body problem) — Glen H. Draper.	155
Liquor in Education — Isabel C. Sturm.	44
Mathematics and Histology — Oliver E. Glenn.	205
Mathematics and Mathematicians from Abel to Zermelo — Einar Hille.	127
Maximum Area in a Corner — Vern Hoggatt.	95
Numbers Game — From Time Magazine 7/14/52	43
Off the Beaten Path with Some Differentiation Formulas — J. C. Eaves.	147
On Arithmetic Methods in Elementary Algebra — B. E. Mitchell	153
On Metric Representation of Groups — David Ellis	183
On the Problem of Three Bodies in a Plane — Victor G. Szehehely.	59
Proof of Fermat's Last Theorem for $n = 2(8a+1)$ — Thomas Griselle	263
Some Applications of Finite Differences — Joseph W. Creely.	189
Spheres Associated with a Tetrahedron — Victor Thébault.	33
Systems of Equations, Matrices and Determinants — Olga Tausky and John Todd	
Part 1	9
Part 2	71
Theory of Budgets Based on Parabolic Engel Curves — G. A. Baker.	67
The Rule of Double False — Harold E. Bowie	269

Articles by Authors

Biographical sketches of authors appear in the same issue as their articles or in the next issue.

Baker, G. A., Theory of Budgets Based on Parabolic Engel Curves.	67
Bowie, Harold E., The Rule of Double False	269
Creely, Joseph W., Some Applications of Finite Differences.	189
Curtiss, J. H., Elements of a Mathematical Theory of Probability	233

- The Design and Analysis of Experiments. By Oscar Kempthorne, John Wiley and Sons, N. Y., 1952, \$8.50 — N. G. Parke 174
 The Nature of Number. By Roy Dubisch, The Ronald Press, N. Y., 1952 \$4.00 —
 Edith R. Schneckenburger 171
 Theory of Probability. By S. E. Munroe, McGraw-Hill, N. Y., 1951, \$4.50 — Paul B. Johnson 230

Problems and Questions

Contributors

Numbers refer to pages. Bold type indicates a problem solved and solution published; italics, a problem solved but solution not published; ordinary type, a problem proposed.

- Anning, Norman 107, 224, 277, 290
 Bailey, V. C. 217
 Baker, George 109
 Bakst, Aaron 169
 Bankoff, Leon 47, **50**, 53, 103, 107, 113, 157, 162, 163, 164, **166**, 215, 218, **218**, 220, 222, **222**, 279, **281**, **283**
 Barnett, Joseph, Jr. 108
 Barston, Eugene 218
 Becknell, G. G. 279
 Berkofsky, Louis 287
 Berry, H. H. 50, 218
 Bonic, Robert 162, 163, 218, 278, 282
 Botsford, J. L. 223
 Bouwsma, Ward 216 (3), 218, 219, 279, **280**
 Brenner, J. L. 168
 Butchart, J. H. 54, 169, 225
 Carver, W. B. 49, 162, 163, 164, **164**, **167**, 215, **216**
 Cleagh, W. T. 218
 Couchman, Richard 287
 Court, N. A. 278
 Courter, G. W. **51**, 163, 220
 Crane, R. E. 158
 Cromelin, J. S. 47, **221**
 Dernham, Monte 54, 289
 Dorsey, F. F. 49, 53, 111,
 Duarte, F. J. 278
 Duncan, Dewey 49, 104, 285
 Epstein, A. L. 50, 53, 107, **113**, 162, 164, 167, 218
 Eves, Howard **112**, 159, 163, **166**, 215, 218, 219, **220**
 Fehr, H. F. **286**
 Fettis, H. E. 278
 Fobes, M. P. 225, 287
 Foster, J. E. 278
 Funkenbusch, W. W. 219
 Galebaugh, L. R. 216
 Gehman, H. M. **282**, **284**
 Gentry, Frank C. 277
 Glenn, W. H., Jr. 157
 Gold, B. K. 288
 Goman, E. G. **286**
 Gottlieb, Peter 218
 Gould, H. W. 285, **285**
 Gregory, Arthur 167, 218, 219, 220, **285**, 287
 Grote, Richard 218
 Hagopian, J. E. 218
 Hahn, S. W. 220
 Hamilton, H. J. **216**
 Hanania, Mary 53
 Harris, V. C. 288
 Hatcher, J. R. 104
 Hebb, Harry 218
 Heller, H. F. 218
 Herrera, R. B. 47, 218
 Herrmann, Robert 218
 Hoggatt, Vern 218, **286**
 Holland, Samuel, Jr. 165, 222
 Horton, R. E. 163, 170
 Howell, J. M. 111, 168, 169, 215, 282, **287**, 289, 290
 Jackson, R. E. 53, **108**
 Johnson, Norman 218
 Jones, John, Jr. **280**
 Keeping, E. S. 49, 220
 Kennedy, Joseph 287
 Khabbaz, Samir 53
 Kirchberg, Allen 218
 Kist, J. E. 220
 Klamkin, M. S. 53, 54, 107, 108, 111, 113, 115, 168, **169**, 169 (2), 219, 220 (2), **222**, 225, 226, 278, 279, **284**, **287**, **287**
 Konhauser, J. D. E. 285
 Kopania, Alvin 218
 Kraitchik, M. 290
 Kravitz, Sam 279, 282
 Lay, L. C. 103, 282
 Leifer, H. R. **107**
 Leong, William **109**, 223, 285, **285**
 Levy, Joel 111
 MacKay, D. L. 103, 282
 Marer, Fred **285**
 Meserve, B. E. 225
 Michalup, Erich 161
 Miksa, F. L. 107, 157, 158
 Monahan, J. H. 160
 Morduchow, M. 164
 Moser, Leo 48, **49**, 53, see next page

Draper, Glen H., Letter (concerning the three body problem)	155
Eaves, J. C., Off the Beaten Path with some Differentiation Formulas	147
Ellis, David, On Metric Representation of Groups	183
Elrod, S. B., Ellipse Construction Short Cuts	97
Fain, Bill W., Evaluation of Certain Classes of Infinite Series in Closed Form	121
Fort, Tomlison, Application of the Summation by Parts Formula to Summability of Series	199
Foster, James E., Don't Call it Science	209
Foster, James E., Every Integer Greater than 2 is a Member of a Pythagorean Triplet	209
Glenn, Oliver E., Mathematics and Histology	205
Green, John W., A Note on the Solution of the Equation $f'(x) = f(x+a)$	117
Griselle, Thomas, Proof of Fermat's Last Theorem for $n=2(8a+1)$	263
Hille, Einar, Mathematics and Mathematicians from Abel to Zermelo	127
Hoggatt, Vern, Maximum Area in a Corner	95
James, Robert C., Infinite Series and Fourier and Taylor Expansions	21
Johnson, Charles A., A Reflexive Approach to the Teaching of Mathematics	35
Kefalas, Christos N., A Formula for the Calculation of the Inertia Moment of Some Geometric Solids	265
Lamperti, John, Information Retrieval	228
Willer, Kenneth S., Construction of the Green's Function of a Linear Differential System	1
Hills, C. N., Construction of the Position and Extent of the Axes of an Ellipse, Given a Pair of Semi-conjugate Diameters	227
Mitchell, B. E., On Arithmetic Methods in Elementary Algebra	153
Osborn, Roger, A Consideration of the Null Class	175
Rauch, S. E., Cycloidal Motion of Electrons	255
Redheffer, R. M., A Note on the Poison Law	185
Seidlin, J., Ideal Preparation in Mathematics for College Freshmen	89
Sturm, Isabel C., Liquor in Education	44
Szebehely, Victor G., On the Problem of Three Bodies in a Plane	59
Thebault, Victor, Spheres Associated with a Tetrahedron	33
Todd, Olga Tausky and John, Systems of Equations, Matrices and Determinants, two parts	9 and 71

Current Papers and Books

Advanced Engineering Mathematics. By C. R. Wylie, Jr., McGraw-Hill, N. Y., 1952, \$7.50 — N. G. Parke	101
Calculus, Revised Edition. By J. V. Mckelvey, The Macmillan Co., N. Y., 1951, \$4.50 — Helen G. Russell	232
Fourier Transforms, By Jan N. Sueddon, McGraw-Hill, 1951 — A. Robinson	41
Intermediate Algebra. By Paul K. Reeves and Fred W. Sparks, McGraw-Hill, N. Y., 1951, \$3.25 — Vivian Gummo	100
Introduction to Number Theory. By Trygve Nagell, John Wiley and Sons N. Y., 1951, \$5.00 — Morgan Ward	39
Letter to Mitchell	273
Lectures in Abstract Algebra. By Nathan Jacobson, D. Van Nostrand Co., N. Y., 1951 — Morgan Ward	39
Mathematics of Investment. By Paul R. Rider and Carl H. Fischer, Rinehart & Co., Inc., 1951, \$5.00 — W. H. Bradford	40
Mathematics, Queen and Servant of the Sciences. By E. T. Bell, McGraw-Hill, N. Y., 1951, \$5.00 — Edith R. Schneckenburger	172
Measure Theory. By Paul R. Halmos, D. Van Nostrand Co., N. Y., 1950, \$5.90 — Harry M. Gehman	173
Nomography and Empirical Equations. By Lee H. Johnson, John Wiley and Sons, Inc., N. Y., 1952, \$3.75 — Robert E. Greenwood	42
Statistical Calculation for Beginners. By E. G. Chambers, Cambridge Univ. Press, 1952, \$2.50 — Robert E. Greenwood	42
Tensor Analysis, Theory and Applications. By I. S. Sokolnikoff, John Wiley & Sons, N. Y., 1951, \$6.00 — Carman E. Miller	232
The Algebra of Vectors and Matrices. By T. L. Wade, Addison Wesley, Cambridge, Mass., 1951, \$4.50 — Carman E. Miller	231

MATHEMATICS MAGAZINE

- | | |
|--|--|
| <p>Moser, Leo, cont. 109, 116 (2), 158,
168, 169, 222, 225, 226, 289</p> <p>Moser, William 50</p> <p>Na Nagara, Prasert 218, 219, 220 (2),
222, 279, 279, 282 (2), 285 287</p> <p>Northrop, E. P. 290</p> <p>Ogilvy, C. S. 164</p> <p>Old, W. F. 218</p> <p>Parrish, H. C. 285</p> <p>Pate, George 47</p> <p>Perry, Clay 167</p> <p>Phelps, Mason 285</p> <p>Phelps, R. R. 53, 222, 224</p> <p>Pingry, R. E. 225</p> <p>Piza, P. A. 47, 51, 215, 219</p> <p>Quelch, W. H. 48</p> <p>Ransom, W. R. 163, 218</p> <p>Rappaport, David 163, 218</p> <p>Read, Cecil B. 224</p> <p>Reeves, R. F. 50, 217</p> <p>Rice, L. D. 111</p> <p>Ringenberg, L. A. 218, 285</p> <p>Robertson, Malcolm 104</p> <p>Rosand, David, Jr. 224</p> <p>Salkind, Charles 53, 53, 116, 163,
164, 282, 285, 286</p> <p>Seagle, Perry 53</p> | <p>Sesskin, S. H. 218</p> <p>Sharp, J. N. C. 218</p> <p>Shipman, J. S. 50, 165</p> <p>Silverman, D. L. 48, 158</p> <p>Sisk, A. 108, 112, 159, 218, 223,
282</p> <p>Skolnik, Samuel 160</p> <p>Small, William 220</p> <p>Smith, C. D. 52, 111, 115</p> <p>Smith, R. P. 53</p> <p>Stanton, N. D. 53</p> <p>Starbird, W. B. 218</p> <p>Starke, E. P. 105, 157, 215, 278</p> <p>Stone, Charles 218</p> <p>Tabor, Edwin 288</p> <p>Talbot, W. R. 161</p> <p>Thébault, Victor 53, 158</p> <p>Thomas, P. D. 103, 108, 283</p> <p>Thoro, D. E. 116</p> <p>Throckmorton, V. C. 218</p> <p>Tierney, J. A. 111, 159</p> <p>Warren, L. J. 221</p> <p>Watson, M. R. 218</p> <p>Wilderman, T. C. 224, 287</p> <p>Wilson, S. N. 218</p> <p>Winger, R. E. 289</p> <p>Withers, C. D. 218</p> |
|--|--|

Solutions

The page on which a solution appears is in the parentheses following the number of the problem.

114 (48), 115 (49), 116 (50), 117 (104), 119 (50), 120 (51), 121 (107), 122 (108), 123 (108), 124 (109), 125 (109), 126 (111), 127 (111), 128 (158), 129 (159), 132 (159), 133 (160), 134 (162), 135 (164), 136 (164), 137 (165), 138 (166), 139 (216), 140 (217), 141 (218), 142 (219), 143 (220), 144 (220), 145 (221), 146 (222), 147 (278), 148 (279), 149 (282), 150 (283), 151 (284), 152 (286).

Quickies

Q 15 (115); Q 28 (287); Q 51 (169); Q 57 (287); Q 67, 68 (53); Q 69 (54); Q 70 (54, 115); Q 71, 72, 73, 74 (116); Q 75, 76, 77, 78, 79, 80 (169); Q 81, 82, 83, 84, 85 (225); Q 86, 87 (226); Q 88, 89, 90, 91, 92 (287); Q 93, 94 (288).

Trickies

T 1, 2 (167); T 3, 4, 5 (168); T 6, 7, 8, 9 (289).

Falsies

F 1, 2, 3, 4, 5, 6 (224); F 7, 8, 9, 10 (290).

23,

78

er

),

32

),

47

4,

4,